MODIFICATION OF THE AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act, as amended, (33 U.S.C. §§1251 et seq.; the "CWA"), and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§26-53),

Massachusetts Water Resources Authority ("MWRA")

is authorized to discharge from:

MWRA Publicly Owned Treatment Works ("POTW")
Deer Island Treatment Plant
Deer Island
Boston, MA 02152
(Discharge Serial number T01) (see Attachment A of the Permit)

which discharges to receiving waters located in Massachusetts Bay, which is adjacent to Cape Cod Bay, and a part of the Gulf of Maine;

and from Combined Sewer Overflow Outfalls (see Attachment B and B1), which discharge to the Charles River, Boston Inner Harbor, Mystic River, Dorchester Bay, Alewife Brook (CSOs);

in accordance with effluent limitations, monitoring requirements and other conditions set in the permit signed on May 20, 1999, with the following changes as set forth herein and listed as follows:

See EXHIBITS A and B (attached)

This modifies the permit issued on May 20, 1999 (i.e., which became effective on August 9, 2000 and will expire at midnight on August 9, 2005).

This permit modification will become effective on (See ** below)

This permit modification, and the authorization to discharge will expire at midnight on August 9, 2005.

This permit modification consists of 14 pages and Attachment B - MWRA CSOs Which Will Remain After Completion of CSO Abatement, Attachment B1 - MWRA CSOs to be Eliminated by Completion of CSO Abatement Facilities, Attachment B2 - Extension to Variance for CSO Discharges to Lower Charles Basin, Attachment B3 - Extension to Variance for CSO Discharges to Alewife Brook/ Mystic River Basin, Attachment U - Total Residual Chlorine Limitation Sample Calculations for CSOs, Exhibit A - Sludge Conditions and Exhibit B - CSOs.

Signed this day of DRAFT/NOT SIGNED

Director Office of Ecosystem Protection Environmental Protection Agency Region I Boston, MA

Director
Division of Watershed Management
Department of Environmental Protection
Commonwealth of Massachusetts

Boston, MA

^{**} This permit modification will become effective on the date of signature if no comments are received during public notice. If comments are received during public notice, this permit modification will become effective 60 days after signature.

Page 21a of 32 Permit No. MA0103284 Major Modification No. 2 - 2002

- n. The permittee will review and update as necessary its Emergency Preparedness Plan ("EPP") for backup sludge disposal capacity.
- o. The permittee will submit an annual report to EPA and the MADEP updating the status of its residual management program and backup plan by April 30th of each year. The report will include:
 - i. quantities of sludge (in dry and wet tons) produced, marketed, and landfilled including the identity of the landfill;
 - ii. confirmation that the permittee has maintained and completed all of the appropriate updates to the EPP list of potentially available commercial landfills and transporters, the landfill construction contract bidding documents, and the landfill design and plan of operation documents.

Page 23 of 32 Permit No. MA0103284 Major Modification 2 - 2002

PART I

16. COMBINED SEWER OVERFLOWS (CSO) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS:

During the period beginning with the effective date of the permit and lasting through expiration date of the permit, the permittee is authorized to discharge from the following outfall serial numbers: 201, 203, 205, 205A, 213, and 215:

a. Such discharges will be limited and monitored by the permittee as specified below. Samples will be collected prior to discharge. (See also Attachment B of this Permit Modification. Note: Outfalls 201 and 205A discharge into Class B(CSO) Variance designated waters, and outfalls 203, 205, 213, and 215 discharge into SB(CSO) designated waters.)

Effluent Characteristic	<u>Units</u>	Discharge Limitation		Monitoring Requirement	
		Discharge Event Average	Discharge Event <u>Maximum</u>	Measurement Frequency	Sample Type
Rainfall/Precipitation*7	inches	Report	Report	Per Discharge Event	Total
Flow	MGD	Report	Report	Continuous	See Footnote*3
TSS Outfalls 201,203,205A,213,215*8b Outfall 205*8a	mg/l	Report	Report	4/Year 4/Year	See Footnote*4 See Footnote*4
	mg/l	Report	Report	4/ Year	See Footnote
BOD Outfalls 201,203,205A,213,215*8b	mg/l	Report	Report	4/Year	See Footnote*4
Outfall 205*8a	mg/l	Report	Report	4/Year	See Footnote*4
Chlorine, Total Residual Outfalls 201,203,205A,213,215	mg/l	0.1	0.25 (maximum hourly)	See Footnotes*4,*6b	Grab
Outfall 205	mg/l	0.1	0.25 (maximum hourly)	See Footnotes*4,*6a	Grab

Note: This table is continued on page 23a of this permit modification.

Page 23a of 32 Permit No. MA0103284 Major Modification 2 - 2002

Effluent Characteristic	<u>Units</u>	Discharge Limitation		Monitoring Requirement	
		Discharge Event Average	Discharge Event <u>Maximum</u>	Measurement Frequency	Sample Type
LC ₅₀ Outfall 201,205A*2,*9	%	_	Report	2/Year*12	Composite*11
Outfalls 203,213,215*1,*9	%	_	Report	2/Year*12	Composite*11
Outfall 205 *1,*9	%	_	Report	2/Year*12	Composite*10
pH Outfall 201,205A	st. units	See Part I.16.c.	below.	4/Year	Grab
Outfalls 203,205,213,215	st. units	See Part I.16.d.	below.	4/Year	Grab
Fecal Coliform Bacteria Outfalls 201,203,205A,213,215	org/100 ml	200	400	See Footnotes*4,*5b	Grab
Outfall 205	org/100 ml	200	400	See Footnotes*4,*5a	Grab

Note: All CSO outfalls listed on Attachments B and B1 must meet State Water Quality Standards or comply with variances.

Footnotes begin on Page 24 of this permit.

Page 24 of 32 Permit No. MA0103284 Major Modification No. 2 - 2002

Part I.16.a., Footnotes:

- *1. Perform acute toxicity testing, biannually, using the Inland Silverside (Menidia beryllina) and the Mysid Shrimp (Americamysis bahia) in accordance with test procedures and protocols specified in Attachment Q of the permit. Samples will be collected during the first flush or as a composite over the duration of the overflow, not to exceed twenty-four (24) hours.
- *2. Perform acute toxicity testing, biannually, using the Daphnid (<u>Ceriodaphnia dubia</u>) and the Fathead Minnow (<u>Pimpephales promelas</u>) in accordance with test procedures and protocols specified in Attachment R of the permit. Samples will be collected during the first flush or as a composite over the duration of the overflow, not to exceed twenty-four (24) hours.
- *3. Report the peak flow rate, duration, and volume for each discharge event. Report the duration and volume of flow (or, if impracticable, report modeling results) that bypasses treatment for each discharge event.
- *4. After sufficient data has been collected to characterize the discharge variability at each CSO facility, the permittee may submit an alternative CSO monitoring plan to EPA and the MADEP. Any alternative plan must be capable of demonstrating compliance with the requirements set forth in Part I.16., and must provide data representative of all CSO discharges. If approved by EPA and the MADEP, the permittee will implement the alternative plan in place of the CSO monitoring described in Part I.16.
- *5a. During the first year that this permit is effective, the permittee will sample four discharge events. For each such event, a grab sample will be collected within the first 30 minutes of the start of each discharge, and every hour thereafter for the duration of the overflow. Then, after the first year, the permittee will sample four discharge events per year, as follows: a grab sample will be collected within the first two hours of the start of the discharge, and every hour thereafter for the duration of the overflow. During the first year only, the first sample will be held and subsampled hourly for bacteria for the duration of the overflow.
- *5b. The permittee will sample four discharge events per year, as follows: a grab sample will be collected within the first two hours of the start of the discharge, and every hour thereafter for the duration of the overflow. During the first year only, the first sample will be held and subsampled hourly for bacteria for the duration of the overflow.
- *6a. During the first year that this permit is effective, the permittee will sample four discharge events. For each such event, a grab sample will be collected within the first 30 minutes of the start of each discharge, and every hour thereafter for the duration of the overflow. Then, after the first year, the permittee will sample four discharge events per year, as follows: a grab sample will be collected within the first two hours of the start of the discharge, and every hour thereafter for the duration of the overflow.
- *6b. The permittee will sample four discharge events per year, as follows: a grab sample will be collected within the first two hours of the start of the discharge, and every hour thereafter for the duration of the overflow.
- *7. Report the National Weather Service data for Boston and, if available, report the data from each rain gage at or near the CSO facilities or their service areas per discharge event. Report intensity, duration, and volume of each rain event.
- *8a. During the first year that this permit is effective, the permittee will sample four discharge events. For each such event, a grab sample will be collected within the first 30 minutes of the start of each discharge, and every hour thereafter for the duration of the overflow, not to exceed twenty-four (24) hours. Then, after the first year, the permittee will sample four discharge events per year, as follows: a grab sample will be collected within the first two hours of the start of the discharge, and every hour thereafter for the duration of the overflow, not to exceed twenty-four (24) hours. All BOD samples collected will be composited.

Page 25 of 32 Permit No. MA0103284 Major Modification No. 2 - 2002

- *8b. The permittee will sample four discharge events per year, as follows: a grab sample will be collected within the first two hours, and every hour thereafter for the duration of the overflow, not to exceed twenty-four (24) hours. All BOD samples collected will be composited.
- *9. If the discharge fails an $LC_{50} = 100\%$ toxicity test, the permittee will perform a second acute toxicity test within 30 days, or if weather does not permit, as soon as possible. If the discharge fails the second $LC_{50} = 100\%$ toxicity test, the permittee will investigate the source of the toxicity and submit a toxicity assessment and reduction plan of the discharge based on representative data, to EPA and the MADEP within 6 (six) months of the second failed test. Within 90 days of EPA or the MADEP approval of this plan, the permittee will initiate the plan and begin follow-up biomonitoring of the effluent in accordance with the approved toxicity reduction plan. The toxicity reduction plan will not be complete until the toxicity has been eliminated from the effluent. Also, the results of the assessment study, and the results of the LC_{50} testing requirement set forth in this permit, will serve to indicate whether the existing limitations are sufficient, or whether more stringent limitations or other treatment technologies are required.
- *10. During the first year that this permit is effective, the permittee will sample two discharge events. For each such event, a grab sample will be collected within the first 30 minutes of the start of each discharge, and every hour thereafter for the duration of the overflow, not to exceed twenty-four (24) hours. Then, after the first year, the permittee will sample two discharge events per year, as follows: a grab sample will be collected within the first two hours of the start of the discharge, and every hour thereafter for the duration of the overflow, not to exceed twenty-four (24) hours.
- *11. The permittee will sample two discharge events per year, as follows: a grab sample will be collected within the first two hours, and every hour thereafter for the duration of the overflow, not to exceed twenty-four (24) hours.
- *12. Toxicity test reports will be submitted one month following the test procedure, and by the last day of the month. As an example, if a March toxicity test is performed, the test result will be submitted by April 30th.

Part I.16., Continued:

- b. In addition to the effluent and monitoring requirements listed in Part I.16.a. on pages 27, 28 and 29 of this permit, the discharge will not cause or contribute to an exceedance of state water quality standards.
- c. The pH of the discharge will not be less than 6.5 nor greater than 8.3 at any time, and will not change the pH of the receiving water more than 0.5 standard units outside of the normally occurring pH range. There will be no change from background conditions that would impair any use assigned to this class, unless the cause of the excursion from criteria is due solely to naturally occurring background conditions.
- d. The pH of the discharge will not be less than 6.5 nor greater than 8.5 at any time, and will not change the pH of the receiving water more than 0.2 standard units outside of the normally occurring pH range. There will be no change from background conditions that would impair any use assigned to this class, unless the cause of the excursion from criteria is due solely to naturally occurring background conditions.
- e. During wet weather, the permittee is authorized to discharge storm water/wastewater from combined sewer outfalls listed in Attachments B and B1, subject to the following effluent limitations:
 - i. The discharges will receive treatment at a level providing Best Practicable Control Technology Currently Available (BPT), Best Conventional Pollutant Control Technology (BCT) to control and abate conventional pollutants and Best Available Technology Economically Achievable (BAT) to control and abate non-conventional and toxic pollutants. EPA and MADEP have made a Best Professional Judgement (BPJ) determination that BPT, BCT, and BAT for combined sewer overflows (CSOs) include the implementation of Nine Minimum Controls (NMC) specified below.

Page 26 of 32 Permit No. MA0103284 Major Modification No. 2 - 2002

- (1) Proper operation and regular maintenance programs for the sewer system and the combined sewer overflows.
- (2) Maximum use of the collection system for storage.
- (3) Review and modification of the pretreatment program to assure CSO impacts are minimized.
- (4) Maximization of flow to the POTW for treatment.
- (5) Prohibition of dry weather overflows from CSOs.
- (6) Control of solid and floatable materials in CSOs.
- (7) Pollution prevention programs that focus on contaminant reduction activities.
- (8) Public notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts.
- (9) Monitoring to effectively characterize CSO impacts and the efficacy of CSO controls.

The permittee will implement the nine minimum controls in accordance with the MWRA's "Implementation of Nine Minimum Controls for Combined Sewer Overflows" document, dated January 1, 1997.

- ii. The permittee will achieve the Recommended Plan volume and discharge frequency for a "typical year discharge" in Attachment B of this permit for each CSO listed in Attachment B and eliminate CSO discharges for each CSO listed in Attachment B1. Schedules for completing the necessary CSO abatement projects recommended in the approved CSO Facilities Plan and mandated by the Court Order. The Recommended Plan frequencies and volumes are in accordance with the Massachusetts Water Resource Authority (MWRA) Final CSO Facilities Plan (July 1997), DEP 12/31/97 Administrative Determination and Use Attainability Analysis, and federal court order (U.S. v. M.D.C., et al., No. 85-0489 (D. Mass)) as may be amended. The MWRA may request modification of the Recommended Plan volume and discharge frequencies listed in Attachment B, if the revisions are based on new information, and are in accordance with approved water quality standards. EPA will follow appropriate permit modification procedures, in making any such revisions.
- f. The permittee may consolidate CSO reports which are on similar reporting schedules.
- g. The permittee will implement paragraphs i. through x. listed below, by the effective date of this permit:
 - i. Each CSO structure/regulator, pumping station and/or tidegate will be routinely inspected to insure that they are in good working condition and adjusted to minimize combined sewer discharges and tidal surcharging. Such inspections will occur monthly unless EPA and MADEP approves a site specific inspection program which has been determined by EPA and MADEP to provide an equal level of effectiveness.(MTBL #1, 2, and 4).
 - ii. The following inspection results will be recorded: the date and time of the inspection, the general condition of the facility, and whether the facility is operating satisfactorily. If maintenance is necessary, the permittee will record: the description of the necessary maintenance, the date the necessary maintenance was performed, and whether the observed problem was corrected. The permittee will maintain all records of inspections for at least three (3) years.
 - iii. Annually, no later than <u>February 15th</u>, the permittee will submit a certification to MADEP and EPA which states that the previous calendar year's monthly inspections were conducted, results recorded, and records maintained.
 - iv. The MADEP and EPA have the right to inspect any CSO related structure or outfall, without prior notification to the permittee.
 - v. Discharges to the combined system of septage, holding tank wastes or other material which may cause a visible oil sheen or containing floatable material are prohibited during wet weather when CSO discharges may be active. (NMC #3, 6, and 7).

Page 26a of 32 Permit No. MA010328 Major Modification No. 2 - 2002

- vi. Dry weather overflows (DWOs) are prohibited (NMC #5). All dry weather sanitary and/or industrial discharges from CSOs must be reported to EPA and the MADEP within twenty four (24) hours in accordance with the reporting requirements for plant bypass (Paragraph D.1.e. of Part II of this permit).
- vii. The permittee will quantify and record all MWRA discharges from combined sewer outfalls (NMC #9). Quantification may be through direct measurement or estimation. When estimating, the permittee will make reasonable efforts, i.e. gaging, measurements, to verify the validity of the estimation technique. The following information must be recorded for each combined sewer outfall for each discharge event:
 - (1) Estimated duration (hours) of discharge;
 - (2) Estimated volume (gallons) of discharge; and
 - (3) National Weather Service precipitation data from the nearest gage where precipitation is available at daily (twenty four (24) hour) intervals and the nearest gage where precipitation data is available to the permittee at a minimum of one-hour intervals.

Within 3 months of the effective date of this permit, the permittee will submit a CSO monitoring plan to EPA and MADEP for approval which includes the methods MWRA will use to quantify CSO activations and volumes. The CSO monitoring plan will be implemented upon EPA and MADEP approval.

The permittee will provide semi-annual reports with the information in items 1 and 2 above to EPA and MADEP for all outfalls owned and operated by MWRA listed in Attachment B. These semi-annual reports will be submitted by April 30 and October 31of each year, and will reflect the information collected during the time periods of October through March and April through September, respectively. The information required in the April 30 report may be submitted as part of the annual report required in Part I.16.h of this Permit.

The permittee will also provide, annually, the information in items 1 and 2 above for member community CSOs. The discharge information for items 1 and 2 above may be generated through modeling and supplemented by metering pursuant to the approved CSO monitoring plan. The permittee will submit this information for the calendar year to the communities by March 31, of the following year and to EPA and the MADEP in its annual report required in item I.16.h. below.

- viii. Cumulative precipitation per discharge event will be calculated.
- ix. The permittee will maintain all records of discharges for at least six (6) years after the effective date of this permit, as it is collected, on an ongoing basis.

Page 27 of 32 Permit No. MA010328 Major Modification No. 2 - 2002

x. Within 12 months of the effective date of this permit, the permittee will install and maintain identification signs for all combined sewer outfall structures. The signs must be located at or near the combined sewer outfall structures and easily readable by the public from both the land and water. These signs will be a minimum of twelve x eighteen (12 x 18) inches in size, with white lettering against a green background, and will contain the following information:

WARNING: WET WEATHER SEWAGE DISCHARGE MWRA OUTFALL (discharge serial number)

The permittee, to the extent feasible, will add a universal symbol to their warning signs reflecting a CSO discharge, or will place additional signs in languages other than English based on a consideration of the primary language of the residents and users of the water resource in the vicinity of the CSO.

h. Annual Report

By April 30 of each year, the permittee will submit a report which includes the following information:

i. Estimated activation frequency and discharge volume for each CSO during the previous calendar year. The report will include this information for member community CSOs and each of the authorized CSO discharges listed on Attachments B and B1 of this permit modification.

Page 27a of 32 Permit No. MA0103284 Major Modification No. 2 - 2002

- ii. Precipitation during the previous year for each day, including total rainfall, peak intensity, and average intensity. The report will include each day that a CSO discharge activation occurred.
- iii. Status of the implementation of CSO abatement work for which the permittee is directly responsible in accordance with the MWRA Final CSO Facilities Plan and the federal court order (as may be amended).
- iv. For outfalls listed in Attachment B, provide the following information in the Annual Report for years 3 and 5 using the updated MWRA model (or equivalent) for comparison:
 - (1) A comparison between the precipitation for the previous year and the precipitation in the typical year under future planned conditions used in the MWRA Final CSO Facilities Plan. The comparison will include the number of events and size of events (including recurrence interval).
 - (2) A comparison, for each CSO, between the activation volume and frequency for the previous year and the volume and frequency expected during a typical year under future planned conditions.
 - (3) An evaluation of whether the CSO activation volume and frequency for the previous year is in accordance with the estimates in the MWRA Final CSO Facilities Plan, given the precipitation which occurred during the year, and the CSO abatement activities which have been implemented. Where CSO discharges are determined to be greater than the activation frequency or volume in the MWRA Final CSO Facilities Plan, the permittee will include a discussion of remaining CSO abatement activities and an assessment of the impact of those projects on attaining the level of CSO control identified in the MWRA Final CSO Facilities Plan.
- v. In the first annual report submitted in accordance with this permit, the permittee will submit a public notification plan to describe the measures actively being taken to meet the ninth minimum control (NMC) requirement listed under Part I.16.e.i.(9) of the permit, and an evaluation of further measures to enhance the public notification program, including use of web postings with CSO information.
- i. CSOs Subject To Water Quality Variances/Reopener
 - i. CSOs discharging to the Alewife Brook/Upper Mystic River have been granted a 36 month variance under the Massachusetts Water Quality Standards. The Variance became effective on March 5, 1999. The MADEP subsequently extended the timeframe of the Variance so that it remains in effect until September 5, 2003. A copy of the Final Variance and Conditions is included as Attachment B3 and hereby incorporated as conditions of this permit modification.
 - ii. The effluent limitations for the Alewife Brook and Upper Mystic River CSOs found in this permit are based on the April 2001 MWRA Notice of Project Change, as required by the Variance. When a final Administrative Determination on water quality standards is made by the MADEP and is approved by EPA, the MWRA's permit may be reopened and modified to reflect the standard and appropriate level of CSO control.
 - iii. CSOs discharging to the Lower Charles River were originally granted a 24 month variance under the Massachusetts Water Quality Standards effective October 1, 1998. The MADEP subsequently extended the timeframe of the Variance so that it remained in effect until October 1, 2002. The MADEP subsequently extended the timeframe of the Variance again so that it remains in effect until October 1, 2003. A copy of the Final Variance Conditions is attached as Attachment B2 and hereby incorporated as conditions of this permit modification.

Page 27b of 32 Permit No. MA0103284 Major Modification No. 2 - 2002

- iv. The effluent limitations for the Charles River CSOs found in this permit are based on the recommendations in the MWRA Final CSO Facilities Plan. When a final Administrative Determination on water quality standards is made by the MADEP and approved by EPA, the MWRA's permit may be reopened and modified to reflect the standard and appropriate level of CSO control.
- j. MWRA will demonstrate to the satisfaction of EPA and MADEP that all proposed changes to its sewer system that may impact activation frequency or volume of CSO communities outfalls are consistent with the 1997 Final CSO Recommended Plan. At least ninety (90) days prior to the implementation of any change in the permittee's combined sewer overflow system that may impact activation frequency and volume of CSO communities outfalls, each proposed change with all pertinent information, will be submitted to the affected member community for review.

k. Notice of Elimination

The permittee will give notice of elimination or change in status of any CSO outfall listed in Attachment B1 as soon as possible in writing to the Director of the Office of Ecosystem Protection at EPA and to the Director of the Division of Watershed Management at the MADEP.

1. Notice of Facility Acceptance and Operation

The permittee will give notice of the facility acceptance and operation of any CSO outfall listed in Attachment B as soon as possible in writing to the Director of the Office of Ecosystem Protection at EPA and to the Director of the Division of Watershed Management at the MADEP.

17. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from those outfalls listed in Attachments A, B, and B1 of this permit. Discharges of wastewater from any other point source are not authorized under this permit, see also Part II.B.4 (Bypass) of this permit, except that this section of the permit will not apply to the discharge of wastewater flow through the existing Deer Island outfall system into Boston Harbor if such a discharge is required by EPA and the MADEP.

18. OPERATION AND MAINTENANCE OF THE MWRA SEWER SYSTEM

Operation and maintenance of the sewer system will be in compliance with the General Requirements of Part II and the following terms and conditions:

a. Maintenance Staff

The permittee will provide an adequate staff to carry out the operation, maintenance, repair, and testing functions required to ensure compliance with the terms and conditions of this permit.

- b. Sanitary Sewer Overflows ("SSOs")
- (i) For the portion of the regional sewer system operated by the MWRA, the MWRA will report all sanitary sewer overflows to EPA and MADEP, in accordance with the provisions in Part II.D.1.e. of this permit. A sanitary sewer overflow is an overflow, spill, release, or diversion of wastewater from a sanitary sewer that occurs prior to the headworks of the Deer Island treatment plant.

(vi) Reopener: This permit may be reopened, utilizing permit modification procedures, to modify the MWRA's recommended program and/or to add more detailed I/I and SSO planning and remediation requirements to the permit (including requirements regarding MWRA regulation of the member communities and/or adding the member communities as co-permittees directly regulated under this permit). Requirements related to SSO controls also may be incorporated or revised as part of the permit modification for Phase II CSO controls.

Note: In addition to the above rights to reopen the permit, the EPA and MADEP always retain their rights to respond to violations of legal requirements through enforcement (e.g., to require I/I reduction measures to abate SSOs). In addition, EPA and the MADEP retain the right to seek to cover the member communities under general or individual permits at any time (subject to public comment and appeal rights at the time).

(vii) It is anticipated that the MWRA will enter into an updated Memorandum of Agreement (MOA) with the MADEP regarding I/I issues and that this MOA will allocate roles and responsibilities, including enforcement, among MWRA, its member communities and the MADEP to ensure implementation of the comprehensive program.

c. Pumping and System Capacities

The permittee will submit the following information monthly to the EPA and the MADEP as specified in Part I.20.a.:

- i. The number of pumps fully operational each day at the Deer Island POTW and a summary report on the operational status of the pumps at MWRA pumping stations.
- ii. The number of hours each day the gates were choked at the Columbus Park, Ward Street, and Chelsea Creek Headworks.
- iii. The daily flow rates through the Columbus Park, Ward Street, and Chelsea Creek Headworks.

d. Alternative Power Source

In order to maintain compliance with the terms and conditions of this permit, the permittee will provide by the effective date of the permit an alternative power source sufficient to operate the wastewater control facilities - including all pump and lift stations.

Page 30 of 32 Permit No. MA0103284 Major Modification No. 2 - 2002

relationship, (2) number of risers and ports opened and closed, and (3) information available from any video inspections conducted that month. Until the outfall commences operation, the permittee shall submit a report to EPA and the MADEP each month on the status of the outfall construction and the permittee's plans for the treatment plant and outfall start up operation. This report shall include a time table for the completion of all key tasks.

- f. Within ninety (90) days of the effective date of this permit, the permittee shall develop and implement a long-range operations and maintenance plan that will maximize the life of the treatment facility. The permittee shall report on the plan's implementation and results to EPA and the MADEP on a yearly basis.
- g. The MWRA shall perform routine maintenance of the sewer system, the sewage treatment plant, and the sludge pelletizing plant. Such maintenance shall include prompt repair of any malfunctioning outfall diffuser ports. An annual maintenance update shall be published in the MWRA's Annual Report. The MWRA shall submit an annual status sheet to EPA and the MADEP on plant performance, using key indicators for maintenance and providing detailed information on any necessary equipment replacement. The annual status sheet shall be placed on the MWRA web page for public information purposes.
- h. Within one year of the effective date of this permit modification, the permittee will develop a plan for providing annual training to its sewer system operation staff. The primary purpose of the training will be to implement proper operation, maintenance and safety measures (including emergency response) in accordance with the permittee's sewer system operation and maintenance plan (see Part I.18.b.ii. of the permit). Annual training will commence no later than six months after development of the plan, and the MWRA will make the plan available at the MWRA offices at the Charlestown Navy Yard for examination by EPA, MADEP, and the public.

19. LONG-TERM CSO CONTROL PLAN

A court order, in ongoing litigation among EPA, the MADEP, the MWRA, and others ("court order"), requires the MWRA to construct certain CSO control facilities ("court-ordered facilities"). These facilities were initially proposed in the MWRA's December 1994 "Final CSO Conceptual Plan." This plan anticipated changes in water quality standards for certain areas.

The MWRA issued a Final CSO Facilities Plan in August 1997. Water quality standards revisions were proposed by the MADEP in December, 1997 and approved by EPA in February, 1998. In addition, 24 months and 36 months variances to the water quality standards were issued by the MADEP for the Lower Charles River Basin on September 2, 1998 and for the Alewife/Upper Mystic River Basin on March 5, 1999, respectively. (See also: Part I.16.i. of this permit, CSOs Subject To Water Quality Variances/Reopener.)

The permittee is required, by <u>December, 1998</u>, to submit to EPA and the MADEP an updated version of the 1997 Final CSO Facilities Plan. This update shall reflect the findings and analysis developed pursuant to the July, 1998 milestone concerning compliance with water quality standards, as well as any additional facilities required pursuant to the December, 1997 milestone concerning the Charles River. This update shall include a clear explanation of how the updated plan meets the requirements of EPA's national CSO policy, which was published in the Federal Register on April 19, 1994 (59 FR 18688), or any subsequent amendments, and any applicable guidance.

20. MONITORING AND REPORTING

a. Reporting

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report Forms postmarked no later than the fifteenth (15th) day of the month following the completed reporting period. The first report is due on the fifteenth (15th) day of the month following the effective date of the permit.

Page 32 of 32 Permit No. MA0103284 Major Modification No. 2 - 2002

e. Notification to the General Public:

The permittee shall inform the general public by maintaining a free-access Internet web page and by maintaining at least two repositories where hard copies of all documents are placed, one of which shall be the MWRA's Charlestown Navy Yard Offices, and the other shall be on Cape Cod (i.e., the specific location will be determined after consultation with interested Cape Groups.). The following information shall be included on the Internet web page and in each repository:

- (1) any proposed changes to the ambient monitoring plan, including any proposed interim changes,
- (2) any proposed changes to the contingency plan, including any proposed interim changes,
- (3) all "caution" and/or "warning" level exceedances, as defined within the Contingency Plan,
- (4) the MWRA's outfall contingency simulation plan and any proposed changes to this plan,
- (5) all reports sent by the MWRA to the OMSAP for review,
- (6) all notices sent to EPA/MADEP regarding facility changes that may result in receiving water impacts,
- (7) the MWRA's pollution prevention plan and any proposed changes to this plan,
- (8) any proposed changes to the current groundwater remediation prohibition,
- (9) all analyses of industrial pretreatment local limits and any proposed changes to the local limits,
- (10) all sampling results reported within Discharge Monitoring Reports, and
- (11) any proposed changes to MWRA's sewer system that may increase CSO communities activation frequency and volume set forth in the 1997 Final CSO Facilities Plan.

f. Notification to the Stellwagen Bank National Marine Sanctuary (SBNMS)

On or before January 1st of each year, for the life of this permit, the MWRA shall submit a report to the Stellwagen Bank National Marine Sanctuary (SBNMS) that: (1) includes all monitoring and related data from the Ambient Monitoring Plan that relates to the SBNMS, and (2) documents the effects of the Deer Island discharge on Sanctuary resources and qualities regarding the previous year.

21. STATE PERMIT CONDITIONS

This Discharge Permit is issued jointly by the U. S. Environmental Protection Agency and the Massachusetts Department of Environmental Protection under Federal and State law, respectively. As such, all the terms and conditions of this permit are hereby incorporated into and constitute a discharge permit issued by the Director of the Division of Watershed Management pursuant to M.G.L. Chapter 21, §43.

During the 30 day period following the issuance of the permit, any person aggrieved by the issuance of the permit may file a request for an adjudicatory hearing at the MADEP. The standing of a person to request a hearing, and the procedure for filing such request are governed by the provisions of M.G.L. c.30A and 310 CMR 1.01. See also 314 CMR 2.08.

Each Agency shall have the independent right to enforce the terms and conditions of this Permit. Any modification, suspension or revocation of this Permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of this Permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this Permit is declared invalid, illegal or otherwise issued in violation of State law such permit shall remain in full force and effect under Federal law as an NPDES Permit issued by the U.S. Environmental Protection Agency. In the event this Permit is declared invalid, illegal or otherwise issued in violation of Federal law, this Permit shall remain in full force and effect under State law as a Permit issued by the Commonwealth of Massachusetts.

ATTACHMENT B

MWRA CSOs Which Will Remain After Completion of CSO Abatement Recommended by the Final CSO Facilities Plan

NPDES Permit No. MA0103284 Boston, MA

Major Modification No. 2 - 2002

RECOMMENDED PLAN

OUTFALL	RECEIVING WATER	CLASS	CSO VOLUME ACTIVATION (3) (FREQUENCY PER YEAR)	TYPICAL YEAR DISCHARGES: (MILLION GALLONS)	TYPICAL YEAR DISCHARGES: CSO CURRENT STATUS
MWR203 (Prison Point TF)	Boston Inner Harbor - Upper	SB-CSO	25	227.8	Active
MWR205 ⁽⁵⁾ (Somerville Marginal TF)	Boston Inner Harbor - Mystic Chelsea	SB- CSO	39	60.6	Active
MWR205A (5)	Mystic River	B-CSO Variance	3	3.5	Active
MWR215 (Union Park TF) ⁽¹⁾ , (2)	Boston Inner Harbor - Fort Point Channel	SB-CSO	17	71.4	Active
MWR213 (Reserved Channel TF) ⁽¹⁾	Boston Inner Harbor - Reserved Channel	SB-CSO	3	25.2	Active
MWR201 (Cottage Farm TF)	Charles River - Lower	B-CSO Variance	7	26.7	Active
MWR003	Alewife Brook	B-CSO Variance	5	1.0	Active
MWR010 ⁽⁴⁾	Charles River - Lower	B-CSO Variance	0	0	Active
MWR018	Charles River - Lower	B-CSO Variance	2	0.5	Active
MWR019	Charles River - Lower	B-CSO Variance	2	0.1	Active
MWR020	Charles River - Lower	B-CSO Variance	1	0.1	Active
MWR023	Charles River - Lower	B-CSO Variance	2	0.1	Active

Footnotes:

⁽¹⁾ Facility is not yet constructed, discharge is currently through Boston Water and Sewer Commission (BWSC) outfalls.

⁽²⁾ The sampling location for Outfall MWRA 215 will be located where the discharge leaves the facility, prior to the end of the pipe .

⁽³⁾ The Recommended Plan conditions are not expected to all be met until the year 2008, and these conditions are based on modeling results.

⁽⁴⁾ The discharge from this outfall will likely activate during a five year storm.

⁽⁵⁾ The sampling location for Outfalls MWR205 and MWR205A will be located at 42° 23' 51.18942" Latitude and 71° 5' 1.22141" Longitude.

ATTACHMENT B1

MWRA CSOs to be Eliminated by Completion of CSO Abatement Facilities

NPDES Permit No. MA0103284

Boston, MA

Major Modification No. 2 - 2002

TYPICAL YEAR DISCHARGES

<u>OUTFALL</u> ⁽¹⁾	RECEIVING WATER	<u>CLASS</u>	CSO CURRENT STATUS
MWR 209 (Fox Point TF) ⁽²⁾	Southern Dorchester Bay	SB	Active
MWR 211 (Commercial Point TF) ⁽²⁾	Southern Dorchester Bay	SB	Active

Footnotes:

⁽¹⁾ The following outfalls have been closed: MWR 207 (Constitution Beach, Class SB), MWR 021 (Charles River-Lower, Class B-CSO), and MWR 022 (Charles River-Lower, Class B-CSO).

⁽²⁾ The permittee, EPA, and the MADEP will be entering into an Administrative Order that provides interim effluent limits for the Fox Point (209) and Commercial Point (211) CSO facilities.

ATTACHMENT U

Total Residual Chlorine Limitation Sample Calculations for Combined Sewer Overflows (CSOs) NPDES Permit No. MA0103284 Boston, MA

Given:

Dr = dilution ratio = (4 parts receiving water to 1 part effluent) = 4:1

Df = dilution factor = (dilution ratio plus one) = 5

A = acute water quality limitation (maximum hourly limit) = 0.1 mg/l

C = chronic water quality limitations (average of the samples taken during the discharge event) = 0.05 mg/l

Calculations:

1. Acute Limitation (A)

MA Water Quality Standard for total residual chlorine = salt water, 0.013 mg/l; fresh water, 0.019 mg/l. Salt Water Limit = Water Quality Standard x dilution factor = (0.013 mg/l x 5) = 0.065 mg/l = 0.1 mg/l Fresh Water Limit = Water Quality Standard x dilution factor = (0.019 mg/l x 5) = 0.095 mg/l = 0.1 mg/l Therefore, the hourly maximum limitation for all CSOs listed under Part I.16.a. of the Permit = 0.1 mg/l

2. Chronic Limitation (C)

*Water Quality Limitation for total residual chlorine = 0.05 mg/l (salt and fresh water).

Salt Water Limit = Water Quality Standard x dilution factor = (0.05 mg/l x 5) = 0.25 mg/l.

Fresh Water Limit = Water Quality Standard x dilution factor = (0.05 mg/l x 5) = 0.25 mg/l.

Therefore, the average chronic limitation for all CSOs listed under Part I.16.a. of the Permit = 0.25 mg/l.

^{*}Based on a study called: Acute Toxic Effects of Chlorinated Primary Sewage Effluent on Brook Trout and Brown Trout, Manchester, Vermont, Batten Kill River, by Peter M. Nolan, U.S.E.P.A., Region I.

EXHIBIT A Sludge Conditions

(1) Add the following language to Part I.13. on page 21a. of the permit:

- n. The permittee will review and update as necessary its Emergency Preparedness Plan ("EPP") for backup sludge disposal capacity.
- o. The permittee will submit an annual report to EPA and the MADEP updating the status of its residual management program and backup plan by April 30th of each year. The report will include:
 - i. quantities of sludge (in dry and wet tons) produced, marketed, and landfilled including the identity of the landfill;
 - ii. confirmation that the permittee has maintained and completed all of the appropriate updates to the EPP list of potentially available commercial landfills and transporters, the landfill construction contract bidding documents, and the landfill design and plan of operation documents.

EXHIBIT B Combined Sewer Overflows

(1) Delete the following outfalls from Part I.16. on page 23 of the permit:

CSO Outfalls: 207, 209, and 211

(2) Delete the following phrase from Part I.16.a. on page 23 of the permit (and add in its place #(3)):

Note: Outfalls 201 and 205A discharge into Class B

(3) Add the following phrase to Part I.16.a. on page 23 of the permit:

Note: Outfalls 201 and 205A discharge into Class B - CSO Variance

(4) Delete the following phrase from Part I.16.a on page 23 of the permit:

outfalls 209 and 211 discharge into SB designated waters

(5) Delete the following phrase from Part I.16.a on page 23 of the permit (and add in its place #(6)):

outfalls 203, 205, and 207 discharge into SB(CSO)

(6) Add the following phrase to Part I.16.a. on page 23 of the permit:

outfalls 203 and 205 discharge into SB(CSO)

(7) Delete the following outfalls from Part I.16.a. limitations and monitoring requirements on page 23 of the permit:

CSO Outfalls: 207, 209, and 211

(8) Add the following outfalls to Part I.16.a. limitations and monitoring requirements on page 23 of the permit:

CSO Outfalls: 213 and 215

(9) Add the following sentence to Part I.16.a. on page 23 of the permit:

Note: This table is continued on page 23a of this permit modification.

(10) Add the following phrase to Part I.16.a. on page 23 of the permit:

and B1

(11) Add the following phrase to Part I.16.a. footnote *7 on page 24 of the permit:

and, if available, report the data from each rain gage at or near the CSO facilities or their service areas

(12) Add the following language to Part I.16.e. on page 25 of the permit:

and B1

(13) Delete the following phrase from Part I.16.e.i on page 26 of the permit:

, by the effective date of this permit.

- (14) Delete the following sentence from Part I.16.e.ii. on page 26 of the permit (and add in its place #(15)):
 - ii. This permit may be reopened to add additional technology-based requirements based on information assembled during the MWRA's development of a long-term CSO control plan.
- (15) Add the following paragraph to Part I.16.e.ii. on page 26 of the permit:
 - ii. The permittee will achieve the Recommended Plan volume and discharge frequency for a "typical year discharge" in Attachment B of this permit for each CSO listed in Attachment B and eliminate CSO discharges for each CSO listed in Attachment B1. Schedules for completing the necessary CSO abatement projects recommended in the approved CSO Facilities Plan and mandated by the Court Order. The Recommended Plan frequencies and volumes are in accordance with the Massachusetts Water Resource Authority (MWRA) Final CSO Facilities Plan (July 1997), DEP 12/31/97 Administrative Determination and Use Attainability Analysis, and federal court order (U.S. v. M.D.C., et al., No. 85-0489 (D. Mass)) as may be amended. The MWRA may request modification of the Recommended Plan volume and discharge frequencies listed in Attachment B, if the revisions are based on new information, and are in accordance with approved water quality standards. EPA will follow appropriate permit modification procedures, in making any such revisions.
- (16) Add the following paragraphs to Part I.16.g.vii. on page 26a of the permit:

Within 3 months of the effective date of this permit, the permittee will submit a CSO monitoring plan to EPA and MADEP for approval which includes the methods MWRA will use to quantify CSO activations and volumes. The CSO monitoring plan will be implemented upon EPA and MADEP approval.

The permittee will provide semi-annual reports with the information in items 1 and 2 above to EPA and MADEP for all outfalls owned and operated by MWRA listed in Attachment B. These semi-annual reports will be submitted by April 30 and October 31of each year, and will reflect the information collected during the time periods of October through March and April through September, respectively. The information required in the April 30 report may be submitted as part of the annual report required in Part I.16.h of this Permit.

The permittee will also provide the information in items 1 and 2 above for member community CSOs. The discharge information for items 1 and 2 above may be generated through modeling and supplemented by metering pursuant to the approved CSO monitoring plan. The permittee will submit this information to the communities by March 31, of the following year and to EPA and the MADEP in its annual report required in item I.16.h. below.

(17) Add the following language to Part I.16.g.x. on page 27 of the permit:

The permittee, to the extent feasible, will add a universal symbol to their warning signs reflecting a CSO discharge, or will place additional signs in languages other than English based on a consideration of the primary language of the residents and users of the water resource in the vicinity of the CSO.

(18) Add the following language to Part I.16.h., i., j., k. and l. on pages 27, 27a, and 27b of the permit:

h. Annual Report

By <u>April 30</u> of each year, the permittee will submit a report which includes the following information:

- i. Estimated activation frequency and discharge volume for each CSO during the previous calendar year. The report will include this information for member community CSOs and each of the authorized CSO discharges listed on Attachments B and B1 of this permit modification.
- ii. Precipitation during the previous year for each day, including total rainfall, peak intensity, and average intensity. The report will include each day that a CSO discharge activation occurred.
- iii. Status of the implementation of CSO abatement work for which the permittee is directly responsible in accordance with the MWRA Final CSO Facilities Plan and the federal court order (as may be amended).
- iv. For outfalls listed in Attachment B, provide the following information in the Annual Report for years 3 and 5 using the updated MWRA model (or equivalent) for comparison:
 - (1) A comparison between the precipitation for the previous year and the precipitation in the typical year under future planned conditions used in the MWRA Final CSO Facilities Plan. The comparison will include the number of events and size of events (including recurrence interval).

- (2) A comparison, for each CSO, between the activation volume and frequency for the previous year and the volume and frequency expected during a typical year under future planned conditions.
- (3) An evaluation of whether the CSO activation volume and frequency for the previous year is in accordance with the estimates in the MWRA Final CSO Facilities Plan, given the precipitation which occurred during the year, and the CSO abatement activities which have been implemented. Where CSO discharges are determined to be greater than the activation frequency or volume in the MWRA Final CSO Facilities Plan, the permittee will include a discussion of remaining CSO abatement activities and an assessment of the impact of those projects on attaining the level of CSO control identified in the MWRA Final CSO Facilities Plan.
- v. In the first annual report submitted in accordance with this permit, the permittee shall submit a public notification plan to describe the measures actively being taken to meet the ninth minimum control (NMC) requirement listed under Part I.16.e.i.(9) of the permit, and an evaluation of further measures to enhance the public notification program, including use of web postings with CSO information.
- i. CSOs Subject To Water Quality Variances/Reopener
 - i. CSOs discharging to the Alewife Brook/Upper Mystic River have been granted a 36 month variance under the Massachusetts Water Quality Standards. The Variance became effective on March 5, 1999. The MADEP subsequently extended the timeframe of the Variance so that it remains in effect until September 5, 2003. A copy of the Final Variance and Conditions is included as Attachment B2 and hereby incorporated as conditions of this permit modification.
 - ii. The effluent limitations for the Alewife Brook and Upper Mystic River CSOs found in this permit are based on the April 2001 MWRA Notice of Project Change, as required by the Variance. When a final Administrative Determination on water quality standards is made by the MADEP and is approved by EPA, the MWRA's permit may be reopened and modified to reflect the standard and appropriate level of CSO control.
 - iii. CSOs discharging to the Lower Charles River were originally granted a 24 month variance under the Massachusetts Water Quality Standards effective October 1, 1998. The MADEP subsequently extended the timeframe of the Variance so that it remains in effect until October 1, 2002, and the MADEP may be extending the timeframe of the Variance again so that it remains in effect until October 1, 2003. A copy of the Final Variance Conditions is attached as Attachment B3 and hereby incorporated as conditions of this permit modification.
 - iv. The effluent limitations for the Charles River CSOs found in this permit are based on the recommendations in the MWRA Final CSO Facilities Plan. When a final Administrative Determination on water quality standards is made by the MADEP and approved by EPA, the MWRA's permit may be reopened and modified to reflect the standard and appropriate level of CSO control.

j. MWRA will demonstrate to the satisfaction of EPA and MADEP that all proposed changes to its sewer system that may impact activation frequency in volume of CSO communities outfalls are consistent with the 1997 Final CSO Recommended Plan. At least ninety (90) days prior to the implementation of any change in the permittee's combined sewer overflow system that may impact activation frequency and volume of CSO communities outfalls, each proposed change with all pertinent information, will be submitted to the affected member community for review.

k. Notice of Elimination

The permittee will give notice of elimination or change in status of any CSO outfall listed in Attachment B1 as soon as possible in writing to the Director of the Office of Ecosystem Protection at EPA and to the Director of the Division of Watershed Management at the MADEP.

1. Notice of Facility Acceptance and Operation

The permittee will give notice of the facility acceptance and operation of any CSO outfall listed in Attachment B as soon as possible in writing to the Director of the Office of Ecosystem Protection at EPA and to the Director of the Division of Watershed Management at the MADEP.

(19) Add the following phrase to Part I.17. on page 27b of the permit:

and B1

- (20) Add the following paragraph to Part I.18.h. on page 30 of the permit:
- h. Within one year of the effective date of this permit modification, the permittee will develop a plan for providing annual training to its sewer system operation staff. The primary purpose of the training will be to implement proper operation, maintenance and safety measures (including emergency response) in accordance with the permittee's sewer system operation and maintenance plan (see Part I.18.b.ii. of the permit). Annual training will commence no later than six months after development of the plan, and the MWRA will make the plan available at the MWRA offices at the Charlestown Navy Yard for examination by EPA, MADEP, and the public.
- (21) Add the following sentence to Part I.19. on page 30 of the permit:

(See also: Part I.16.i. of this permit, CSOs Subject To Water Quality Variances/Reopener.)

(22) <u>Delete the following word from Part I.20.e.</u>, number (9), at the end of the sentence, on page 32 of the permit:

and

(23) Add the following word to Part I.20.e., number (10), at the end of the sentence, on page 32 of the permit:

and

- (24) Add the following sentence to Part I.20.e. on page 32 of the permit:
 - (11) any proposed changes to MWRA's sewer system that may increase CSO communities activation frequency and volume set forth in the 1997 Final CSO Facilities Plan.

(25) Delete the following attachment, called Attachment B, from the permit:

ATTACHMENT B Combined Sewer Overflow Discharge Outfalls NPDES Permit No. MA0103284 Boston, MA

<u>Discharge Serial Number</u> :	<u>Discharge Name</u> (By Location):	Receiving Water:
003	Cambridge Park Drive Overflow	Alewife Brook
201	Cottage Farm Chlorination and Detention Station	Charles River
203	Prison Point CSO Treatment Facility	Inner Harbor
205	Somerville Marginal CSO Pretreatment Facility	Mystic River
010	Brookline St. Overflow	Charles River
018	Gloucester St. Overflow	Charles River
019	Exeter St. Overflow	Charles River
020	Berkely St. Overflow	Charles River
021	Mt. Vernon St. Overflow	Charles River
022	Cambridge St. Overflow	Charles River
023	Fens Gatehouse Overflow	Charles River
205A	Somerville Marginal/Fellsway by Wellington Bridge	Mystic River
207	Constitution Beach	Boston Harbor
209	Fox Point via BOS088/089	Dorchester Bay
211	Commercial Point via BOS090	Dorchester Bay

The CSO outfall 205A is used by the MWRA and the City of Somerville. The MWRA's designated sampling point for outfalls 205 and 205A shall be at the following location:

(1) Somerville Marginal (205) and Somerville/Fellsway (205A) - 42° 23' 0.608" N Latitude and 71° 05' 0.062" Longitude

The CSO outfalls 211 and 209 are used by the MWRA and the Boston Water and Sewer Commission. The MWRA's designated sampling points shall be at the following locations:

- (1) Commercial Point (211) 42° 17' 0.862" N Latitude and 71° 03' 0.240" Longitude
- (2) Fox Point (209) 42° 18' 0.278" N Latitude and 71° 03' 0.261" W Longitude

(26) Replace the above attachment of the permit with the following Attachment B:

ATTACHMENT B

MWRA CSOs Which Will Remain After Completion of CSO Abatement Recommended by the Final CSO Facilities Plan NPDES Permit No. MA0103284 Boston, MA

Major Modification No. 2 - 2002

RECOMMENDED PLAN

OUTFALL	RECEIVING WATER	CLASS	CSO VOLUME ACTIVATION (3) (FREQUENCY PER YEAR)	TYPICAL YEAR DISCHARGES: (MILLION GALLONS)	TYPICAL YEAR DISCHARGES: CSO CURRENT STATUS
MWR203 (Prison Point TF)	Boston Inner Harbor - Upper	SB-CSO	25	227.8	Active
MWR205 (Somerville Marginal TF) ⁽⁵⁾	Boston Inner Harbor - Mystic Chelsea	SB- CSO	39	60.6	Active
MWR205A ⁽⁵⁾	Mystic River	B-CSO Variance	3	3.5	Active
MWR215 (Union Park TF) ⁽¹⁾ , (2)	Boston Inner Harbor - Fort Point Channel	SB-CSO	17	71.4	Active
MWR213 (Reserved Channel TF) ⁽¹⁾	Boston Inner Harbor - Reserved Channel	SB-CSO	3	25.2	Active
MWR201 (Cottage Farm TF)	Charles River - Lower	B-CSO Variance	7	26.7	Active
MWR003	Alewife Brook	B-CSO Variance	5	1.0	Active
MWR010 ⁽⁴⁾	Charles River - Lower	B-CSO Variance	0	0	Active
MWR018	Charles River - Lower	B-CSO Variance	2	0.5	Active
MWR019	Charles River - Lower	B-CSO Variance	2	0.1	Active
MWR020	Charles River - Lower	B-CSO Variance	1	0.1	Active
MWR023	Charles River - Lower	B-CSO Variance	2	0.1	Active

Footnotes:

⁽¹⁾ Facility is not yet constructed, discharge is currently through Boston Water and Sewer Commission (BWSC) outfalls.

⁽²⁾ The sampling location for Outfall MWRA 215 will be located where the discharge leaves the facility, prior to the end of the pipe.

⁽³⁾ The Recommended Plan conditions are not expected to all be met until the year 2008, and these conditions are based on modeling results.

⁽⁴⁾ The discharge from this outfall will likely activate during a five year storm.

⁽⁵⁾ The sampling location for Outfalls MWR205 and MWR205A will be located at 42° 23' 51.18942" Latitude and 71° 5' 1.22141" Longitude.